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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/779,315 | 02/08/2001 | April Patricia Rasala | Rasala 3-21 | 4552 |

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EXAMINER

PAYNE, DAVID C

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 09/30/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. 09/779,315 | Applicant(s) RASALA ET AL. |
|------------------------------|-------------------------------|-------------------------------|
| Examiner | Art Unit 2633 | |
| David C. Payne | | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 08 February 2001 .

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-18 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-18 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 08 February 2001 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____ .
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not mention a computer program, a computer readable medium or code for controlling the switch fabric.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being obvious over Rasala et al. US 6,535,310 B1 (Rasala) in view of Bala et al. US 6,335,992 B1 (Bala).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing

under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Re claim(s) 1, 3, 6, 7, 9, 10, 11, 14, 15

Rasala disclosed (Figure 3)

A wide-sense, non-blocking wavelength division multiplexed (WDM) cross-connect device/method (e.g., col./line: 3/35-45), the device comprising: a first fabric (11) being adapted to receive a first number of input fibers at an input side of said first fabric, wherein at least one of said input fibers is capable of carrying at least two signals having different wavelengths; a second fabric (12) being adapted to output signals onto first number of output fibers at an output side of said second fabric, and wherein at least one of said output fibers is capable of carrying at least two signals having different wavelengths; at least one wavelength interchanger coupled by optical fibers to an output side of said first fabric and to an input side of said second fabric (13); and a controller (15) coupled to said first, second fabrics and to said at least one wavelength interchanger, the controller being configured to execute a routing algorithm that causes a demand that requires a change of wavelength to be routed through at least one of said at least one wavelength interchanger (e.g., col./line: 5/5-20);

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Rasala does not disclose a third fabric being adapted to be optically coupled on an input side of said third fabric to said input fibers and to be optically coupled on an output side of said third fabric to said output fibers; and a controller coupled to said third fabric, the controller being configured to execute a routing algorithm that causes demands that do not require a change in wavelength to be routed through said third fabric. Bala disclosed a 3-fabric switch configuration where one switch is deposited to switch traffic from the inputs to the outputs of the configuration without wavelength conversion (Figure 5c #120). It would have been obvious to one of ordinary skill in the art at the time of invention to add a "transparent" switch fabric to the Rasala invention for the benefit of switching signals through the apparatus in a transparent fashion that is faster and uses less resources when not required.

Re claim(s) 2, 13, 17, 18

Rasala disclosed (Figure 3)

wherein said first number of input fibers is k , said first number of output fibers is k and wherein the device comprises k wavelength interchangers, k being an integer that is greater than or equal to 1.

Re claim(s) 4, 8, 12

Rasala disclosed (Figure 3) wherein the device is wide-sense non-blocking in terms of both wavelength and routing, and wherein each of said k wavelength interchangers (13) is controlled by control signals (15) received thereby to select a wavelength that a signal received on an optical fiber coupling the output side of the first fabric (17) to the wavelength interchanger is to utilize when the signal is routed by the wavelength interchanger onto an optical fiber coupling the wavelength interchanger to the input side (18) of the second fabric.

Re claim(s) 5

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Rasala disclosed (Figure 3) wherein each of said k input fibers is capable of carrying a plurality of signals having different wavelengths (14), and wherein each of said k output fibers is capable of carrying a plurality of signals having different wavelengths (16).

Re claim(s) 16 (insofar as it is understood based on the 112 1st rejection above)

Although Rasal does not disclose: "A computer program", "computer readable medium" or "code for controlling operations", it would have been obvious to one of ordinary skill in the art at the time of invention that the controller (shown in Figure 3 #15) is typically embodied as a computer and computer code since that can perform the operations in a repetitive manner, precise. Computer programs are extremely well known in the art for control of switches.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (703) 306-0004. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Dcp

September 20, 2003



JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600